CLAIMS

1. A method of prevention, treatment or alleviation of a fibrotic condition, comprising the step of administering an effective amount of an antagonist of a C5a receptor to a subject in need of such treatment, in which the antagonist is a peptide or a peptidomimetic compound.

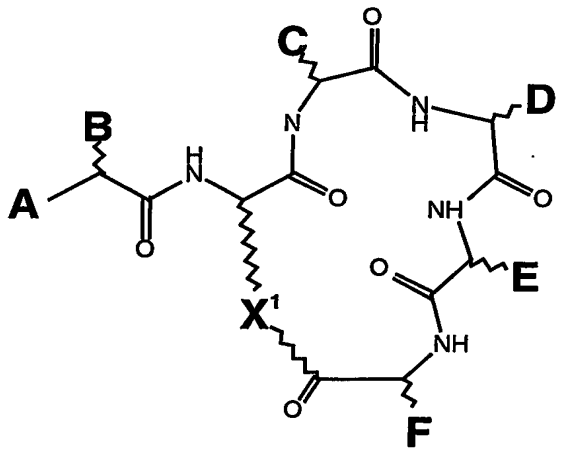
2. A method according to claim 1, in which the antagonist is a cyclic peptide or a cyclic peptidomimetic compound.

3. A method according to claim 1 or claim 2, in which the inhibitor is a compound which

a) is an antagonist of a G protein-coupled receptor,

b) has substantially no agonist activity, and

c) is a cyclic peptide or peptidomimetic compound of formula I



where A is H, alkyl, aryl, NH_2, NH-alkyl, $N(alkyl)_2$, NH-aryl, NH-acyl, NH-benzoyl, $NHSO_3$, $NHSO_2$-alkyl, $NHSO_2$-aryl, OH, O-alkyl, or O-aryl;

B is an alkyl, aryl, phenyl, benzyl, naphthyl or indole group, or the side chain of a D- or L-amino acid, but is not the side chain of glycine, D-phenylalanine, L-

homophenylalanine, L-tryptophan, L-homotryptophan, L-tyrosine, or L-homotyrosine;

C is the side chain of a D-, L- or homo-amino acid such as glycine, alanine, leucine, valine, proline, hydroxyproline, or thioproline, but is not the side chain of isoleucine, phenylalanine, or cyclohexylalanine;

D is the side chain of a neutral D-amino acid, but is the side chain of glycine or D-alanine, a bulky planar side chain, or a bulky charged side chain;

E is a bulky substituent, but is not the side chain of D-tryptophan, L-N-methyltryptophan, L-homophenylalanine, L-2-naphthyl L-tetrahydroisoquinoline, L-cyclohexylalanine, D-leucine, L-fluorenylalanine, or L-histidine;

F is the side chain of L-arginine, L-homoarginine, L-citrulline, or L-canavanine, or a bioisostere thereof; and

X is $-(CH_2)_nNH-$ or $(CH_2)_n-S-$, where n is an integer of from 1 to 4; $-(CH_2)_2O-$; $-(CH_2)_3O-$; $-(CH_2)_3-$; $-(CH_2)_4-$; $-CH_2COCHRNH-$; or $-CH_2-CHCOCHRNH-$, where R is the side chain of any common or uncommon amino acid.

4. A method according to claim 3, in which n is 2 or 3.

5. A method according to claim 3 or claim 4, in which A is an acetamide group, an aminomethyl group, or a substituted or unsubstituted sulphonamide group.

6. A method according to claim 5, in which A is a substituted sulphonamide, and the substituent is an alkyl chain of 1 to 6, or a phenyl or toluyl group.

7. A method according to claim 6, in which the substituent is an alkyl chain of 1 to 4 carbon atoms.

8. A method according to any one of claims 3 to 7, in which B is the side chain of L-phenylalanine or L-phenylglycine.

9. A method according to any one of claims 3 to 8, in which C is the side chain of glycine, alanine, leucine,

valine, proline, hydroxyproline, or thioproline.

10. A method according to any one of claims 3 to 9, in which D is the side chain of D-Leucine, D-homoleucine, D-cyclohexylalanine, D-homocyclohexylalanine, D-valine, D-norleucine, D-homo-norleucine, D-phenylalanine, D-tetrahydroisoquinoline, D-glutamine, D-glutamate, or D-tyrosine.

11. A method according to any one of claims 3 to 10, in which the antagonist is a compound which has antagonist activity against C5aR, and has no C5a agonist activity.

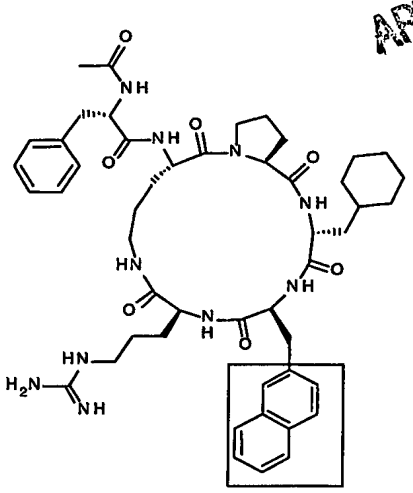
12. A method according to any one of claims 1 to 11, in which the inhibitor has potent antagonist activity at sub-micromolar concentrations.

13. A method according to any one of claims 1 to 12, in which the compound has a receptor affinity IC50<25μM, and an antagonist potency IC50<1μM.

14. A method according to any one of claims 1 to 13, in which the compound is selected from the group consisting of compounds **1** to **6**, **10** to **15**, **17**, **19**, **20**, **22**, **25**, **26**, **28**, **30**, **31**, **33** to **37**, **39** to **45**, **47** to **50**, **52** to **58** and **60** to **70** described in International patent application No.PCT/AU02/01427.

15. A method according to claim 14, in which the compound is AcF[OP-DCha-WR] (PMX53 compound **1**), AcF[OP-DPhe-WR] (compound **33**), AcF[OP-DCha-FR] (compound **60**) or AcF[OP-Dcha-WCit] (compound **45**).

16. A method according to claim 15, in which the compound is PMX53, having the formula



17. A method according to any one of claims 1 to 16, in which the fibrotic condition is selected from the group consisting of multiple sclerosis, proliferative vitroretinopathy, macular degeneration, scleroderma, sclerosing peritonitis, fibrosis arising from trauma, burns, chemotherapy, radiation, infection or surgery and fibrosis of the kidney, liver, heart or lungs, chronic hypertension and diabetes mellitus.

18. A method according to claim 17, in which the fibrotic condition is cardiac fibrosis or pulmonary fibrosis.

19. The use of a C5a receptor antagonist as defined in any one of claims 1 to 16 for the manufacture of a medicament for use in the treatment of a fibrotic condition.

20. A use according to claim 19, in which the fibrotic disorder is selected from the group consisting of multiple sclerosis, proliferative vitroretinopathy, macular degeneration, scleroderma, sclerosing peritonitis, fibrosis arising from trauma, burns, chemotherapy, radiation, infection or surgery and fibrosis of the kidney, liver, heart or lungs, chronic hypertension and diabetes mellitus.

21. A use according to claim 20, in which the fibrotic condition is cardiac fibrosis or pulmonary fibrosis.